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Nalco Docket No 5621P1  
Customer No. 49459

In the United States Patent and Trademark Office

Applicants:	John D. Morris et al.	)	Declaration
		)	
Serial No.:	10/658,648	)	Examiner: Rita J. Desai
		)	
Date Filed:	September 9, 2003	)	Group Art Unit: 1625

For: FLUORESCENT MONOMERS AND TAGGED TREATMENT POLYMERS  
CONTAINING SAME FOR USE IN INDUSTRIAL WATER SYSTEMS

DECLARATION OF JOHN D. MORRIS AND MINGLI WEI  
UNDER 37 C.F.R. § 1.132

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

John D. Morris declares that:

1. He is a co-inventor of U.S. Patent Application Serial No. 10/658,648, entitled "FLUORESCENT MONOMERS AND TAGGED TREATMENT POLYMERS CONTAINING SAME FOR USE IN INDUSTRIAL WATER SYSTEMS," which was filed on September 9, 2003 and is now pending.
2. He attended and graduated from Illinois Institute of Technology, receiving a Masters degree in Chemistry.
3. He is currently employed as a Research and Development Manager at Nalco Company and that his employment with Nalco Company began in December of 1995. Prior to becoming a manager, he worked in the Core Technologies area at Nalco for 12 years as a synthetic/polymer chemist.
4. He has read and understood the above-captioned patent application and the pending Office Action dated November 6, 2008.

Mingli Wei declares that:

1. He is a co-inventor of U.S. Patent Application Serial No. 10/658,648, entitled "FLUORESCENT MONOMERS AND TAGGED TREATMENT POLYMERS CONTAINING SAME FOR USE IN INDUSTRIAL WATER SYSTEMS," which was filed on September 9, 2003 and is now pending

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2. He attended and graduated from University of Pennsylvania, receiving a Ph.D. degree in Chemistry.
3. He is currently employed as a Staff Scientist at Nalco Company and that his employment with Nalco Company began in December of 1997.
4. He has read and understood the above-captioned patent application and the pending Office Action dated November 6, 2008.

John D. Morris and Mingli Wei Declare that:

1. I reviewed the pending office action and the references cited by and provided by the Examiner.
2. I disagree with the Examiner's statement that the prior art compounds cited by the Examiner are polymerizable via free radical polymerization. I support this contention with the following analysis:

Upon review of the cited references (1,003,083, 1,054,436, 47-12553, 47-12553 (2)), I have found no instance where the claimed compounds of said references incorporate a vinylic moiety that allows for free radical polymerization with other comonomers.

A polymer is a large molecule made of repeating monomers, while a monomer is the smallest repeating unit of a polymer. There are basically two types of polymerization processes that produce polymers, one is chain polymerization, and another is step polymerization; the applicants' claimed free radical polymerization is a chain polymerization. For a free radical polymerization to happen, a monomer must be able to react with a free radical species (initiating radical or propagating radical) to form a new radical species that further propagates to form polymers, these monomers are normally vinyl monomers that contain a carbon-carbon double bond, "Principles of Polymerization", by George Odian, Wiley-Interscience Publication, 1981.

The present invention teaches a naphthalimide compound containing a vinyl moiety that serves as a monomer capable of free radical polymerization with other vinyl monomers.

I disagree with the examiner's statement that both applicants' claimed compounds and compounds of cited references are similar in structure, though they share similar naphthalimide fluorescence moiety, the applicants argue that the applicants' claimed

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compounds are a distinctive class, of compounds that having a specifically designed polymerizable vinyl group. As stated above, in order to perform free radical polymerization, a compound must be able to react with a radical and generate a new propagating radical, and I have found none of the claimed compounds of said references contain a polymerizable group such as vinyl group that is required for free radical polymerization, therefore, none of these claimed compounds are capable of free radical polymerization, further, the cited references neither teach nor mention that their compound can be polymerized by free radical polymerization process.

The compounds of cited references either contain one or two tertiary amine groups or quaternary amine groups, these amine groups may be able to physically absorb onto high molecular weight polymers due to charged interaction, but they are not capable of free radical polymerization due to the lack of a polymerizable group that can react with a free radical and generate a new propagating radical.

3. I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements and the like may jeopardize the validity of the present application or any patent issuing thereon.

Dated: 1/27/2009

Signed: John D. Morris  
John D. Morris

Dated: 1/27/2009

Signed: Mingli Wei  
Mingli Wei